

CLAIMS (31289)

What is claimed is:

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1. A method of transmission, comprising:
    - (a) convolution encoding a block of bits with each of codes  $g_1, g_2, \dots, g_n$  where  $n$  is an integer greater than 1 to yield  $n$  packets of encoded bits;
    - (b) transmitting said packet encoded with  $g_1$  from step (a);
    - (c) transmitting said packet encoded with  $g_2$  from step (a) in response to a received request for transmission.
  2. The method of claim 1, wherein:
    - (a) said block of bits includes data bits plus check bits.
  3. A method of reception, comprising:
    - (a) decoding a received packet of bits which includes data bits and check bits, said packet encoded with convolution code  $g_1$ ;
    - (b) when the decoding of step (a) indicates an error, receiving and decoding a packet of said data bits and check bits encoded with convolution code  $g_2$  where  $g_1$  differs from  $g_2$ ;
    - (c) when said decoding of step (b) indicates an error, decoding a combination of said packet encoded with code  $g_1$  with said packet encoded with code  $g_2$ .
  4. The method of claim 3, further comprising:
    - (a) when the decoding of step (a) of claim 3 indicates an error, sending a request for a packet of said data bits and check bits encoded with convolution code  $g_2$ .
  5. The method of claim 3, wherein:
    - (a) said decoding of step (c) uses the Viterbi algorithm.

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6. The method of claim 3, wherein:

(a) said decoding of step (c) of claim 3 combines said packet encoded with g1 and said packet encoded with g2 by weighting each of said packets according to a transmission channel fading amplitude during reception of said each of said packets.

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